OIPE IAP18 OCT 10 2006 PATENT & TRADEMARK OFFICE

10-11-06

1636

PTO/SB/21 (09-06)
Approved for use through 03/31/2007. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission: 10

Application Number	10/068,664
Filing Date	02/06/2002
First Named Inventor	Chuan LI
Art Unit	1636
Examiner Name	James S. Ketter
Attorney Docket Number	

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☑ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
  - ☐ Reply to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
  - ☐ Landscape Table on CD
- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☐ Other Enclosure(s) (please Identify below):

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name			
Signature	Chuan Li		
Printed name	Chuan Li		
Date	10/10/06	Reg. No.	

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature	Chuan Li		
Typed or printed name	Chuan Li	Date	10/10/06

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

OIPE IAP18
OCT 10 2006
PATENT & TRADEMARK OFFICE

Amendments to application: DE NOVO SYNTHESIZED PLASMID, METHODS OF MAKING AND USE THEREOF

Applicant Name: Chuan Li

Date: October 10, 2006

Application/Control Number: 10/068,664

Art Unit: 1636

a.) Introductory Comments

These are amendments of application (Application Number: 10/068,664) filed on February 6, 2002.

The applicant elects Group VI to be examined. Group VI includes claims 26, 27, 28, 29, and 30 presented in the amendments filed on June 15, 2006.

Since "only one sequence unrelated to other ordinarily may be searched in an application" (paragraph 3 of page 3 of Office Action mailed on May 15, 2006), the applicant also elects Group VIII to be examined. Group VIII includes claims 31, 32, 33, 34, and 35 presented in the amendments filed on June 15, 2006. Claims 36, 37, 38, 39, and 40 are withdrawn.

The applicant believes the disclosed inventions are related. The reasons are following.
(1). All disclosed plasmids are synthesized by same design. They are synthesized by using a replication origin and a selection marker gene with adaptor sequences. The starting materials to synthesize these plasmids are structural units of a plasmid and are not plasmids themselves. In contrast, all other plasmids are synthesized using existing plasmid as starting material. The application presented a new method of plasmid synthesis.
(2). All disclosed plasmids are initially designed to facilitate protein co-expression. Therefore they are synthesized together for same purpose. Later on they are found to be useful in other applications in addition to protein co-expression.

(3). Some disclosed plasmids contain pMB1 (ColE1) replication origin. Others contain p15A replication origin. These replication origins belong to different compatibility groups and can co-exist in one cell (Page 1.3-1.5, Molecular Cloning A Laboratory Manual, Sambrook et al, Cold Spring Harbor Laboratory Press, 1989). Therefore they can be used together.

(4). The application provides one example of a derivative p2CXL of disclosed plasmid p2C can be used together with another plasmid pET-15b-RAR-LBD to facilitate protein co-expression (EXAMPL 5). Since pETp15b-RAR-LBD has same replication origin and selection marker as p1A. Plasmids p1A and p2C should be used together. It has been demonstrated that a plasmid with one replication origin and selection marker can be used together with another plasmid with a different selection marker and a different replication origin as long as their replication origins belong to different compatibility groups. Therefore many of the disclosed plasmids can be used together.

(5). The 8 kb DNA fragment of our product DigiDNA50-15k is made from plasmids p3A and p4C. The 10 kb DNA fragment of our product DigiDNA50-15k is made from plasmids p3A and p4T. They are all used together in a DNA standard. These demonstrated that these plasmids can all be used together. Our product DigiDNA50-15k can be found at http://www.exptec.com/DNA/DNApdf/DigiDNA50-15kbook.pdf. The 8 and 10 kb DNA bands are shown in the figures.

It has been demonstrated that the plasmids disclosed in the application are synthesized by same design, with same method and for same purpose. Many of these plasmids can be used together. On the other hand, each of the disclosed plasmids is distinct and can be used individually in various applications. The applicant understand the limited and heavily utilized sequence search capacity at the USPTO, the application may be examined accordingly.